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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,845	02/13/2002	Anna Ericsson	CT2665.NP	9030

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EXAMINER

ZUCKER, PAUL A

ART UNIT

PAPER NUMBER

1621

DATE MAILED: 07/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

10/075,845

Applicant(s)

ERICSSON ET AL.

Examiner

Paul A. Zucker

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 4,6-9 and 13-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5 is/are rejected.
- 7) ☒ Claim(s) 10-12 is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-12, drawn to compounds of formula I and pharmaceutical compositions thereof, classified, for example, in class 562, subclass 466.
- II. Claims 13-16, drawn to methods of treating tumors, classified, for example, in class 514, subclass 569.
- III. Claim 17, drawn to a method of prevention or treatment of post-surgical adhesions, classified, for example, in class 514, subclass 437.
- IV. Claim 18, drawn to a method for the treatment of inflammatory or rheumatic diseases, classified, for example, in class 514, subclass 569.
- V. Claims 19 and 20, drawn to a method for the treatment of dermatoses, classified, for example, in class 514, subclass 437.

Inventions I and II-V are related as product and processes of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product can be used as an intermediate in the synthesis of fluorene derivatives that are useful as electron transport materials in electrophotographic photoreceptors (See rejection over Akasaki below).

Art Unit: 1621

There is no patentable co-action between the inventions II-V, since they represent patentably distinct methods of use. A reference anticipating or rendering obvious one invention would not anticipate or render obvious any other invention of the groups II-V. Similarly, the search of one invention would not be co-extensive with that for any of the other groups.

Because these inventions are distinct for the reasons given above and the search required for each of Groups I-V is not co-extensive with that required for any other invention of Groups I-V, restriction for examination purposes as indicated is proper.

Election Of Species

This application contains claims directed to the patentably distinct species of the claimed invention as set forth in Claims 6 and 7.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Method and composition claims will be examined for the elected species. Currently, Claim 1 is generic, claims 2-5, 8 and 9 are sub-generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

1. During a telephone conversation with Maureen S. Gibbons on 6/13/2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-12. Ms. Gibbons further elected as the single disclosed species the compound of Example 6, (Linker = C₂ alkenyl, Z= ethyl, R_a = methoxy, X= YC(R₁)₂ (with R₁ = methyl), Y= C(R₁)₂ (with R₁ = H)), on page 39 of the specification, claims 1,2, 4 and 5 are readable thereon. Affirmation of this election must be made by Applicants in replying to this Office action. Claim 13-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention. **NOTE:** The Examiner disagrees with Applicants conclusions regarding the claims readable on the elected specie. Claim 4 is restricted to compounds having a

Art Unit: 1621

central five-membered ring and is therefore not readable on the elected specie. The Examiner further believes that, in addition to claims 1,2 and 5, claims 3 and 10-12 are readable thereon. Claims 1-3, 5 and 10-12 have therefore been fully examined on the merits and are the subject of the Office Action below. Further, because no generic claim has been found allowable (see below), examination has been limited to the elected species and the claims readable thereon.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

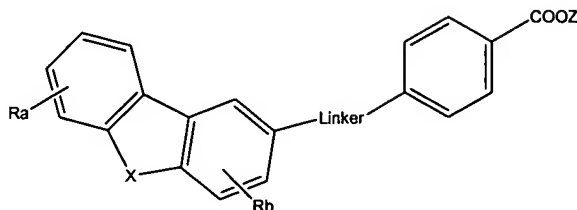
The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akasaki et al (US 5,075,487 12-1991).

Instantly claimed are compounds of formula I:



where the variable groups are as defined in claim 1.

Akasaki teaches (Column 1, line 10- column 2, line 4) fluorene derivatives which have useful properties as electron transport materials for use in multilayered electrophotographic photoreceptors. Akasaki exemplifies (Column 7, line 29 – Column 8, line 16, Example 3) three compounds which correspond to isomers of compounds of the invention in which Linker = C_2 alkenyl, $Z = \text{C}_4\text{H}_9$, $R_{a,b} = \text{H}$, $X = \text{C}(\text{R}_1)_2$ or CO , $\text{R}_1 = \text{H}$. These compounds are intermediates in the synthesis of the electron transport materials.

The compounds exemplified by Akasaki differ from those instantly claimed only in that they are isomeric in the attachment of the linker to the aromatic ring.

Akasaki, however, further generically teaches (Column 1, line 56 – Column 2, line 4) that the final product in all its isomeric forms has utility as an electron transport material.

One of ordinary skill in the art would therefore have been motivated to make the instantly claimed isomers by the expectation that they could be used to produce the corresponding isomeric electron transport materials. There would have been a reasonable expectation of success based upon the expectation of similar properties for isomers about an aromatic ring. This expectation would have been reinforced by Akalksaki's generic teaching. The instantly claimed compounds would therefore have been obvious to one of ordinary skill in the art.

Claim Objections

4. Claims 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Allowable Subject Matter

5. Claims 10-12 are drawn to allowable subject matter. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art of record: Akasaki et al (US 5,075,487 12-1991) neither discloses nor fairly suggests the use of the instant compounds for use in pharmaceutical compositions. Claims drawn to pharmaceutical compositions are therefore patentable over Akasaki. The elected specie is free of the art. Compounds in which $X = -YC(R_1)_2-$ or $-C(R_1)_2Y-$ would be considered allowable by the Examiner.

Conclusion

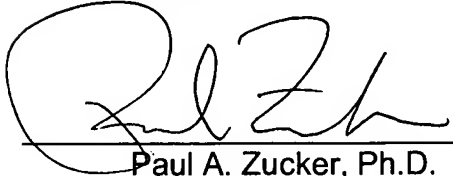
6. Claims 1-20 are pending. Claims 1-3 and 5 are rejected. Claims 10-12 are objected to. Claims 4, 6-9 and 13-20 are withdrawn from consideration.
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Starrett, Jr. et al (US 5,618,839 04-1997) Teaches closely related arotinoid compounds that differ from the instant compounds in having a naphthalene ring system instead of a phenanthrene ring system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. Zucker whose telephone number is 703-306-0512. The examiner can normally be reached on Monday-Friday 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on 703-308-4532. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4556 for regular communications and 703-308-4556 for After Final communications.

Art Unit: 1621

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.



Paul A. Zucker, Ph.D.
Patent Examiner
Technology Center 1600

July 10, 2003